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|---|--|----------|------------------------------------|--------------------|-----------------------|-------------------------------|
| FORM PTO-1449 (M dited) | | | ATTY. DOCKET NO. TH1647 04 (US) | APPLICATION NUMBER | | |
| LIST OF INFORMATION PROVIDED BY APPLICANT (Use several sheets if necessary) | | | APPLICANT C. L. Edwards et al. | | | |
| | | | FILING DATE | GROUP ART UNIT | | |
| REFERENCE DESIGNATION | | | U.S. PATENT DOCUMENTS | | | |
| Examiner Initial | Document No. | Date | Patentee | Class | Subclass | Filing Date If Appropriate |
| AA | 3,676,523 | 7/11/72 | Mason | 260 | 683.15D | |
| AB | 3,686,351 | 8/22/72 | Mason | 260 | 683.15D | |
| AC | 3,737,475 | 6/5/73 | Mason | 260 | 683.15D | |
| AD | 3,825,615 | 7/23/74 | Lutz | 260 | 683.15D | |
| AE | 4,020,121 | 4/26/77 | Kister et al. | 260 | 683.15D | |
| AF | 4,021,447 | 5/3/77 | Rubin et al. | 260 | 326.8 | |
| AG | 3,702,886 | 11/14/72 | Argauer et al. | 423 | 328 | |
| AH | 3,709,979 | 1/9/73 | Chu | 423 | 328 | |
| AI | 3,832,449 | 8/27/74 | Rubin et al. | | | |
| FOREIGN PATENT DOCUMENTS | | | | | | |
| | Document No. | Date | Country | Class | Subclass | Translation Yes No |
| AL | WO 94/05761 | 3/17/94 | World | C11D | 3/10 | |
| AM | 1,429,143 | 3/24/76 | Great Britain | C11D | 10/02 | |
| AN | WO 99/42553 | 8/26/99 | World | C11D | 3/43 | |
| AO | 0,884,298 A2 | 12/16/98 | Europe | C07C | 43/10 | X |
| OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.) | | | | | | |
| AR | Myers, Drew, "Surfactant Science and Technology," pp. 82-85, VCH Publishers, Inc. (New York, NY, USA) 1988 (ISBN 0-89573-399-0) | | | | | |
| AS | K. Shinoda, "Principles of Solution and Solubility," translation in collaboration with Paul Becher, published by Marcel Dekker, Inc. 1978, pp. 292-304 | | | | | |
| AT | Reid, V.W., G.F. Longman and E. Heinerth, "Determination of Anionic-Active Detergents by Two-Phase Titration," <u>Tensile</u> 4, 1967, pp. 292-304 | | | | | |
| EXAMINER | <i>Jen F Hollans</i> | | DATE CONSIDERED | | <i>April 25, 2004</i> | |

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| Examiner Initial | | Document Number | Date | Patentee | Class | Subclass | Filing Date If Appropriate |
| | BA | 4,482,531 | 11/13/84 | Kuehl | 423 | 329 | |
| | BB | 3,950,496 | 4/13/76 | Ciric | 423 | 328 | |
| | BC | 3,972,983 | 8/3/76 | Ciric | 423 | 328 | |
| | BD | 4,046,859 | 9/6/77 | Plank et al. | 423 | 328 | |
| | BE | 4,247,416 | 1/27/81 | Doherty et al. | 252 | 428 | |
| | BF | 4,086,186 | 4/25/78 | Rubin et al. | 252 | 430 | |
| | BG | 4,046,859 | 9/6/77 | Plank et al. | 423 | 328 | |
| | BH | 4,287,166 | 9/1/81 | Dwyer et al. | 423 | 325 | |
| | BI | 4,247,728 | 1/27/81 | Rubin et al. | 585 | 467 | |
| | | | FOREIGN PATENT DOCUMENTS | | | | |
| | | Document Number | Date | Country | Class | Subclass | Translation Yes No |
| | BL | 06073045 | 3/15/94 | Japan | C07D | 273/08 | X |
| | BM | 03261779 | 11/21/91 | Japan | C07D | 309/24 | X |
| | BN | JP 11-349507 | 12/21/99 | Japan | C07C | 43/11 | X |
| | BO | 100 20 899 A1 | 10/25/01 | Germany | C07D | 493/04 | X |
| OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.) | | | | | | | |
| | BR | B. E. Gordon, H. Roddewig and W. T. Shebs, "A Double Label Radiotracer Approach to Detergency Studies," Journal of American Oil Chemists' Society, Vol. 44, No. 5 (1967) pp. 289-294 | | | | | |
| | BS | W. T. Shebs and B. E. Gorden, "Improvements in Detergency Precision With Radioactive Soil," Journal of American Oil Chemists' Society, Vol. 45, No. 5 (1968) pp. 377-380 | | | | | |
| | BT | W. T. Shebs, "Radioisotope Techniques in Detergency," Chapter 3, <u>Detergency Theory and Technology</u> , Marcel Dekker, Inc., New York (1987) pp. 125-191 | | | | | |
| EXAMINER | | <i>John P. Hollan</i> | | DATE CONSIDERED | | | <i>April 25, 2004</i> |

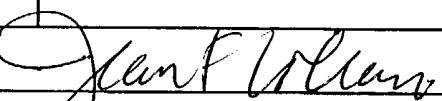
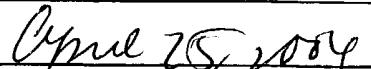
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| Examiner Initial | | Document No. | Date | Patentee | Class | Subclass | Filing Date if Appropriate |
| <i>JW</i> | CA | 4,495,303 | 1/22/85 | Kuehl | 502 | 62 | |
| <i>JW</i> | CB | 4,397,827 | 8/9/83 | Chu | 423 | 326 | |
| <i>JW</i> | CC | 4,640,829 | 2/3/87 | Rubin | 423 | 328 | |
| <i>JW</i> | CD | 4,568,654 | 2/4/86 | Valyocsik | 502 | 62 | |
| <i>JW</i> | CE | 4,698,217 | 10/6/87 | Valyocsik | 423 | 328C | |
| <i>JW</i> | CF | 4,647,442 | 3/3/87 | Derouane et al. | 423 | 306 | |
| <i>JW</i> | CG | 4,619,818 | 10/28/86 | Derogane et al. | 423 | 306 | |
| <i>JW</i> | CH | 4,954,325 | 9/4/90 | Rubin et al. | 423 | 328 | |
| <i>JW</i> | CI | 5,236,575 | 8/17/93 | Bennett et al. | 208 | 46 | |
| FOREIGN PATENT DOCUMENTS | | | | | | | |
| | | Document No. | Date | Country | Class | Subclass | Translation Yes No |
| | CL | | | | | | |
| | CM | | | | | | |
| | CN | | | | | | |
| | CO | | | | | | |
| OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.) | | | | | | | |
| | CR | Roger Hunter et al., "Allylation Using Allylborates," TETRAHEDRON, Vol. 50, No. 3, 1994, pp. 871-888 | | | | | |
| <i>JW</i> | CS | Birgit Bartels et al., "A Selectivity of Activated Ketal Reduction With Borane Dimethyl Sulfide," JOURNAL OF ORGANIC CHEMISTRY, Vol. 58, No. 24, 1993, pp. 6756-6765 | | | | | |
| <i>JW</i> | CT | T. Hosokawa et al., "Palladium (II)-Catalyzed Acetalization of Terminal Olefins Bearing Electron-Withdrawing Substituents With Optically Active Diols," JOURNAL OF ORGANIC CHEMISTRY, Vol. 52, 1987, pp. 1958-1764 | | | | | |
| EXAMINER | | | DATE CONSIDERED | | | | |
| <i>Jean Williams</i> | | | <i>April 26, 2004</i> | | | | |

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| Examiner Initial | | Document Number | Date | Patentee | Class | Subclass | Filing Date If Appropriate |
| | DA | 3,308,069 | 3/7/67 | Wadlinger et al. | 252 | 455 | |
| | DB | Re. 28,341 | 2/18/75 | Wadlinger, et al. | 208 | 120 | |
| | DC | 3,058,805 | 10/16/62 | Weber | 23 | 113 | |
| | DD | 3,130,007 | 4/21/64 | Breck | 23 | 113 | |
| | DE | 3,996,337 | 12/7/76 | Stabenow et al. | 423 | 328 | |
| | DF | 4,440,871 | 4/3/84 | Lok et al. | 502 | 214 | |
| | DG | 5,059,567 | 10/22/91 | Linsten et al. | 502 | 64 | |
| | DH | 3,462,525 | 8/19/69 | Levinsky | 424 | 56 | |
| | DI | 3,428,654 | 2/18/69 | Rubinfeld et al. | 260 | 327 | |
| OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.) | | | | | | | |
| | DR | F. Wang et al., Synlett, (1998) pp. 245-245 | | | | | |
| | DS | A. A. Volkov et al., Dokl. Chem. 283, (1985), pp. 246-248 | | | | | |
| | DT | International Search Report of 5 July 2002 | | | | | |
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| REFERENCE/DESIGNATION | | U.S. PATENT DOCUMENTS | | | | | |
| Examiner Initial | | Document Number | Date | Patentee | Class | Subclass | Filing Date If Appropriate |
| EA | EA | 3,420,875 | 1/7/69 | Di Salvo et al. | 260 | 513 | |
| EB | EB | 3,506,580 | 4/14/70 | Rubinfeld et al. | 252 | 138 | |
| EC | EC | 3,579,537 | 5/18/71 | Rubinfeld et al. | 260 | 327 | |
| ED | ED | 3,524,864 | 8/18/70 | Rubinfeld et al. | 260 | 327 | |
| EE | EE | 5,057,627 | 10/15/91 | Edwards | 568 | 618 | |
| EF | EF | 6,087,311 | 7/11/00 | Van Dijk | 510 | 294 | |
| EG | EG | 6,083,893 | 7/4/00 | Zint et al. | 510 | 221 | |
| EH | EH | 6,159,920 | 12/12/00 | Ridyard | 510 | 324 | |
| EI | EI | 6,153,574 | 11/28/00 | Janssen | 510 | 224 | |
| FOREIGN PATENT DOCUMENTS | | | | | | | |
| | | Document Number | Date | Country | Class | Subclass | Translation Yes No |
| EL | EL | | | | | | |
| EM | EM | | | | | | |
| EN | EN | | | | | | |
| EO | EO | | | | | | |
| OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.) | | | | | | | |
| ER | Anionic Surfactants, Volume 7, Part I, edited by Warner M. Linfield, 1976 by Marcel Dekker, Inc. | | | | | | |
| ES | | | | | | | |
| ET | | | | | | | |
| EXAMINER | <i>Jean P. Hollands</i> | | DATE CONSIDERED <i>April 15, 2004</i> | | | | |

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C. L. Edwards et al.

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U.S. PATENT DOCUMENTS

| Examiner Initial | | Document No. | Date | Patentee | Class | Subclass | Filing Date if Appropriate |
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| <i>GL</i> | FA | 2,778,855 | 1/22/57 | Shokal et al. | 260 | 613 | |
| <i>GL</i> | FB | 4,503,275 | 3/5/85 | Harris et al. | 568 | 866 | |
| <i>GL</i> | FC | 4,317,938 | 3/2/82 | Lutz | 568 | 619 | |
| <i>GL</i> | FD | 4,721,816 | 1/26/88 | Edwards | 568 | 618 | |
| <i>GL</i> | FE | 4,721,817 | 1/26/88 | Edwards | 518 | 618 | |
| <i>GL</i> | FF | 2,808,442 | 10/1/57 | Smith et al. | 260 | 611 | |
| <i>GL</i> | FG | 5,912,408 | 6/15/99 | Trinh et al. | 8 | 142 | |
| <i>GL</i> | FH | 4,544,512 | 10/1985 | Hozumi et al. | 558 | 169 | |
| | FI | | | | | | |

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|----|--------------|------|---------|-------|----------|--------------------|---|
| FL | | | | | | | |
| FM | | | | | | | |
| FN | | | | | | | |
| FO | | | | | | | |

OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

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| FR | |
| FS | |
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